

ABSTRACT

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2 A navigation system includes a navigation-related information server and one or
3 more customer-interface servers. Each customer-interface server receives requests for
4 navigation-related information from end users who have end user computing platforms.
5 The end users send their requests for navigation-related information from end user
6 computing platforms over a data network to the customer-interface servers. In order to
7 respond to the end users, the customer-interface servers request language and format-
8 independent navigation-related information from the navigation-related information
9 server. The navigation-related information server receives the requests from the
10 customer-interface servers. To response to each request for navigation-related
11 information, the navigation-related information server uses one or more geographic
12 databases to formulate language- and format-independent data structures. These
13 language- and format-independent data structures are sent to the customer-interface
14 servers. The customer-interface servers receive the language- and format-independent
15 responses from the navigation-related information server, and formulate language- and
16 format-specific responses that are sent to the end users. In one embodiment, the language
17 and format-independent responses provided by the navigation-related information server
18 are in XML format. The customer-interface servers use XML style sheets to formulate
19 language and format-specific instructions that are sent to the end users.

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